Claims

- 1. A method of sending first and second signals to a plurality of user equipments, the method comprising the steps of:
 - providing of a dedicated channel for each one of the plurality of user equipments,
 - providing of a code-multiplexed shared channel for the plurality of user equipments,
 - assigning of an antenna of a set of antennas to each one of the user equipments,
 - sending of one of the first signals to one of the plurality of user
 equipments on one of the dedicated channels on a carrier frequency by
 applying transmit diversity,
 - sending of one of the second signals to one of the plurality of user equipments on the code-multiplexed shared channel on the carrier frequency by applying multi-user diversity.
- 2. The method of claim 1, the dedicated channel being DPCH type channel and the code-multiplexed shared channel being a HS-DSCH type channel of a HSDPA type system.
- 3. The method of claim 1, further comprising the steps of:
 - assigning a carrier frequency of a set of at least first and second carrier frequencies to each one of the dedicated channels,
 - assigning of a carrier frequency of the set of carrier frequencies to each one of the user equipments.
 - 4. The method of claim 3, further comprising applying transmit diversity for sending of the one of the second signals.

- 5. The method of claim 4, whereby closed loop transmit diversity is applied.
- 6. A computer program product, such as a digital storage medium, comprising program means for sending of first and second signals to a plurality of user equipments, the program means being adapted to perform the steps of:
 - providing of a dedicated channel for each one of the plurality of user equipments,
 - providing of a code-multiplexed shared channel for the plurality of user equipments,
 - assigning of an antenna of a set of antennas to each one of the user equipments,
 - sending of one of the first signals to one of the plurality of user equipments on one of the dedicated channels on a carrier frequency by applying transmit diversity,
 - sending of one of the second signals to one of the plurality of user equipments on the code-multiplexed shared channel on the carrier frequency by applying multi-user diversity.
- 7. A sender for sending of first and second signals to a plurality of user equipments, the sender comprising:
 - a first component for providing of a dedicated channel for each one of the plurality of user equipments,
 - a second component for providing of a code-multiplexed shared channel for the plurality of user equipments,
 - a third component for assigning of an antenna of a set of antennas to each one of the user equipments,

- 'a forth component for sending of one of the first signals to one of the plurality of user equipments on one of the dedicated channels on a carrier frequency by applying transmit diversity,
- a fifth component for sending of one of the second signals to one of the plurality of user equipments on the code-multiplexed shared channel on the carrier frequency by applying multi-user diversity.
- 8. The sender of claim 7 further comprising scheduler means for providing the multi-user diversity.
- 9. The sender of claim 7 further comprising:
 - means for assigning a carrier frequency of a set of at least first and second carrier frequencies to each one of the dedicated channels,
 - means for assigning of a carrier frequency of a set of carrier frequencies to each one of the user equipments.
- 10. A telecommunication system for sending first and second signals to a plurality of user equipments, the telecommunication system comprising:
 - a first component for providing of a dedicated channel for each one of the plurality of user equipments,
 - a second component for providing of a code-multiplexed shared channel for the plurality of user equipments,
 - a third component for assigning of an antenna of a set of antennas to each one of the user equipments,
 - a forth component for sending of one of the first signals to one of the plurality of user equipments on one of the dedicated channels on a carrier frequency by applying transmit diversity,

- a fifth component for sending of one of the second signals to one of the plurality of user equipments on the code-multiplexed shared channel on the carrier frequency by applying multi-user diversity.